

CCR Number: 0009

CRITICALITY: ROUTINE

DUE: 03/13/98

DISTRIBUTION SHEET
EO-1 LEVEL II CCB

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Ed Bicknell/ALI Sys Engineer/MIT

Costas Digenis/Instrument Mgr/MIT

Ken Anderson/ALI Instr. Engr/GSFC

NEW MILLENNIUM PROJECT CONFIGURATION CHANGE REQUEST

PROGRAM <u>EO-1</u> CCR NO. <u>0009</u> DATE INITIATED <u>02/24/98</u> DUE DATE _____		TITLE <u>CHANGES TO EO-1 S/C ALI ICD-18 REV A</u> ORIGINATOR <u>M. Jurotich/GSFC</u> ORIGINATOR'S CHG. NO. <u>EO-1 ICD-018-A</u> SPONSOR/CODE <u>M. Jurotich/EO-1 Payload Mgr</u> PHONE <u>x5919</u>																											
EFFECTIVITY ITEM: <u>ALI</u> S / N _____ ITEM: _____ S / N _____ ITEM: _____ S / N _____		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="2">CHANGE CLASS</td> <td colspan="4">TYPE OF CHANGE</td> </tr> <tr> <td></td> <td align="center">I II</td> <td>MILESTONE <input type="checkbox"/></td> <td>INTERFACE <input checked="" type="checkbox"/></td> <td colspan="2">SOFTWARE <input type="checkbox"/></td> </tr> <tr> <td>PRELIMINARY</td> <td align="center"><input type="checkbox"/> <input type="checkbox"/></td> <td>DOCUMENT <input checked="" type="checkbox"/></td> <td>POWER <input type="checkbox"/></td> <td colspan="2">OTHER <input type="checkbox"/></td> </tr> <tr> <td>FORMAL</td> <td align="center"><input type="checkbox"/> <input type="checkbox"/></td> <td>COST _____ <input type="checkbox"/></td> <td>WEIGHT <input type="checkbox"/></td> <td colspan="2">_____ <input type="checkbox"/></td> </tr> </table> DOCUMENTS OR SOFTWARE AFFECTED <u>EO-1 ICD-018-A</u>			CHANGE CLASS		TYPE OF CHANGE					I II	MILESTONE <input type="checkbox"/>	INTERFACE <input checked="" type="checkbox"/>	SOFTWARE <input type="checkbox"/>		PRELIMINARY	<input type="checkbox"/> <input type="checkbox"/>	DOCUMENT <input checked="" type="checkbox"/>	POWER <input type="checkbox"/>	OTHER <input type="checkbox"/>		FORMAL	<input type="checkbox"/> <input type="checkbox"/>	COST _____ <input type="checkbox"/>	WEIGHT <input type="checkbox"/>	_____ <input type="checkbox"/>		
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PROBLEM <p>The attached Preliminary Interface Revision Notice (PIRN) to EO-1 ICD-018 (Rev A,) EO-1 S/C ALI Interface Control Document (ICD) provides for changes to the Interface document. This PIRN includes suggested changes that will be incorporated as an Interface revision and will be officially documented as such. The PIRN will become an official Interface change once the EO-1 project Configuration Control Board (CCB) chairman signs this CCR and the attached PIRN.</p>																													
PROPOSED SOLUTION <p>Approve the attached PIRN 001 to EO-1 ICD-0018 Rev A, by the EO-1 Level II Configuration Control Board (CCB). The signed off PIRN will serve as the official approval of changes to this ICD. Future changes will be initiated by submittal of Configuration Change Requests (CCRs) and Preliminary Interface Revision Notices (PIRNs) for CCB approval. This document is maintained by the EO-1 Configuration Management Office (CMO).</p>																													
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COMMENTS <div style="text-align: center; font-size: 1.2em; margin-top: 20px;"> <i>Approve to incorporate PIRN 001 into ICD-18</i> </div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="text-align: center;"> CHAIRPERSON </div> <div style="text-align: right;"> DATE <u>15 MAY 98</u> </div> </div>																													

GODDARD SPACE FLIGHT CENTER		1. PAGE 1 OF 2	
PRELIMINARY SPECIFICATION CHANGE NOTICE (PSCN) No. _____		2. INIT. DATE: 2/24/98	
or		3. CONTRACT NUMBER	
PRELIMINARY INTERFACE REVISION NOTICE (PIRN) No. 001			
4. ASSOCIATED CONTROL NUMBERS: EO-1CCR 0009	5. CI'S AFFECTED: SC TO ALI ICD-018 Rev A	6. DOCUMENT NUMBER: REVISION:	
7. DESCRIPTION OF CHANGE:			
<p>1. Section 3.2 <u>Mechanical Interface Requirements</u>: Change</p> <p><u>From</u>: "The ALI instrument consists of the telescope, telescope shroud and two electronic units, and interface cabling."</p> <p><u>To</u>: "The ALI instrument consists of the telescope, telescope shroud and two electronic units, and internal interface cabling. Lincoln Labs shall also deliver a RS 422 harness from the FPE to the FODB Instrument Terminal."</p> <p>2. Figure 3.1 <u>EO-1 Configuration</u> <u>Delete</u>: I/F Bracket</p> <p>3. Section 3.2.2.1 <u>Mass</u>: <u>Add</u>: The following at the end of the last paragraph: "Mass of all Lincoln Lab flight Deliveries shall be 100 kilograms or less."</p> <p>4. <u>Add</u>: The following section: 3.2.2.1.1 <u>ALI Mass</u>: The mass of the ALI is without RS 422 harness from FPE to FOD B Instrument Terminal. The mass of the ALI shall be 93 kilograms or less.</p> <p>5. <u>Add</u>: The following section 3.2.2.1.2 <u>RS 422 Mass</u>: The mass of the RS 422 harness from the FPE to the FODB Instrument Terminal shall be 7 kilograms or less.</p> <p>6. Change Section 3.2.2.2 <u>Center of Gravity</u>: <u>From</u>: "The CG of instrument shall be within the volume defined by a right angle box with corners at (-1, 0, 8) and 1, 5.5 TBR, 12) inches in the ALI coordinate system." <u>To</u>: "The CG of instrument shall be within the volume defined by a right angle box with corners at (-1, 0, 8) and 1, 6.5, 12) inches in the ALI coordinate system."</p> <p>7. Change section 3.2.2.3 <u>Moment of Inertia</u> <u>From</u>: "The moment of inertia (MOI) and products of inertia of the instrument shall be..." <u>To</u>: "The moment of inertia (MOI) and products of inertia of the ALI shall be..."</p> <p>8. <u>Delete</u>: TBR referenced in Section 3.2.4.1, <u>Heat input to Instrument Radiators</u></p> <p>9. <u>Delete</u>: TBR referenced in Section 3.2.4.5, <u>Survival Heaters</u></p> <p>10. <u>Delete</u>: TBR referenced in Section 3.2.10, <u>Nitrogen Purge</u></p>			
PREPARED BY: S. Schneider/EO-1 CMO		ORIGINATING ORGANIZATION APPROVAL:	
		ORGANIZATION:	DATE:
HST CCB ACTION ✓		SIGNATURE:	
APPROVED: _____ DISAPPROVED: _____		DATE: 15 MAY 98 MINUTES No:	

**GODDARD SPACE FLIGHT CENTER
EO-1**

PSCN _____

PIRN 001

Associated control number: EO-1 CCR-0009

CI's affected: SC to ALI ICD -018 Rev A

Date: February 24, 1998

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11.Add: The following to Section 3.2.10 Nitrogen Purge: The purge connector shall be at a connector as shown in ALI Interface Control Drawing A0750. Same bracket as for the survival heaters.

12. Change Section 3.3.1 Electrical Interfaces

From: An RS422 science-data interface connector panel will be located on the instrument pallet near the -X, -Y corner of the pallet, as shown in ALI Interface Control Drawing A0750. Power and 1773 connections are at the ALICE electronics box. The power connection for the electronic box survival heaters is also at the interface panel. Figure 3-5 is an electrical block diagram for the ALI.

To: The shape of the RS 422 harness from the FPE to the FODB Instrument Terminal shall be determined by routing the harness on the Lincoln Labs high fidelity mock up. Lincoln Labs shall respect the keep out zones as shown in ALI Interface Control Drawing A0750. Power and 1773 connections are at the ALICE electronics box. The survival heater connector shall be at a connector bracket as shown in ALI Interface Control Drawing A0750. Same bracket as for the purge.

13.Delete: TBR in Section 3.3.2.2.1 Power Distribution

14.Change Section 3.3.4.1 Description

From: The instrument provider will fabricate, qualify, and provide to the spacecraft integrator all instrument interconnecting flight harness. The spacecraft provider will supply harnessing up to the electrical interface plate and up to the ALICE box (1773 and power).

To: Lincoln Labs will fabricate, qualify, and provide all ALI internal harness (i.e. from ALICE to FPE etc..) and the survival heater harness up to the connector bracket as shown in ALI Interface Control Drawing A0750. Lincoln Labs will fabricate, qualify, and provide the RS 422 FPE to FODB Instrument Terminal harness. The spacecraft provider will supply harnessing up to the connector bracket and up to the ALICE box (1773 and power).

15.Delete: TBR in Section 3.3.4.2 Connectors

16.Delete: TBR in Section 3.3.5.3 ESD

17.Add: The following to after "ALI STM Unit" in Section 4 Deliverables
ALI STM RS 422 harness from FPE to FODB Instrument Terminal

8/1/98